

**CLAIMS:**

1. A structure for mounting equipment inside a vehicle,  
the vehicle having a frame, said structure  
5 comprising:
  - at least one structural member defining a  
platform, said platform being characterized by  
at least one equipment bay adapted to receive  
equipment;
  - 10 - at least one attachment site provided on said at  
least one structural member, said attachment  
site adapted to be resiliently attached to the  
frame of the vehicle for suspending said  
platform inside the vehicle;
  - 15 - wherein, when said structure is installed inside  
the vehicle, said platform is operative to  
maintain the equipment mounted thereto in a  
substantially rigid assembly during motion of  
the vehicle.
- 20 2. A structure as defined in claim 1, wherein said  
structure includes a plurality of attachment sites  
provided on said at least one structural member, each  
attachment site adapted to be resiliently attached to  
25 the frame of the vehicle for suspending said platform  
inside the vehicle.
3. A structure as defined in claim 2, wherein each  
attachment site is adapted to receive at least one  
30 resilient mount, said resilient mount being operative  
to isolate said platform from the frame of the

vehicle when said structure is installed inside the vehicle.

4. A structure as defined in claim 3, wherein said  
5 resilient mount is selected from the group consisting of: a rubber mount, a spring, a damper, a pneumatic spring and a fluid-filled mount.
5. A structure as defined in claim 1, wherein said  
10 platform is characterized by a plurality of equipment bays, each equipment bay adapted to receive a respective piece of equipment.
6. A structure as defined in claim 5, wherein said  
15 structure includes a pair of longitudinally extending structural members defining said platform therebetween.
7. A structure as defined in claim 6, wherein said  
20 structure further includes a plurality of beam members extending transversely between said longitudinally extending structural members, said beam members being operative to delimit said equipment bays.
- 25 8. A structure as defined in claim 6, wherein at least one attachment site is provided on each of said longitudinally extending structural members.
- 30 9. A structure as defined in claim 5, wherein said platform includes a receptacle for collecting fluids,

5       said receptacle being positioned within one or more  
of said equipment bays such that said receptacle is  
located beneath one or more pieces of equipment when  
the one or more pieces of equipment are mounted to  
said platform.

10       10. A structure as defined in claim 1, wherein each of  
the frame of the vehicle and said platform is  
characterized by a respective rigidity, said  
10       structure being operative to ensure that the rigidity  
of said platform is substantially independent from  
the rigidity of the frame of the vehicle when said  
structure is installed inside the vehicle.

15       11. A structure as defined in claim 1, wherein, when the  
vehicle is in motion, said platform is operative to  
maintain a substantially co-axial alignment between  
two or more pieces of equipment mounted thereto.

20       12. A structure as defined in claim 1, wherein said  
structure is a platform assembly.

13. Use of the structure defined in claim 1 for mounting  
equipment inside a rail vehicle.

25       14. Use of the structure defined in claim 1 for mounting  
equipment inside a road vehicle.

15. Use of the structure defined in claim 1 for mounting  
30       equipment inside a ship.

16. Use of the structure defined in claim 1 for mounting equipment inside a magnetically-levitated vehicle.
17. Use of the structure defined in claim 1 for mounting equipment inside an airborne vehicle.
18. A platform assembly for mounting equipment inside a vehicle, the vehicle having a frame, said platform assembly comprising:
- at least one structural member defining a platform, said platform adapted to receive two or more pieces of equipment;
  - a plurality of attachment sites provided on said at least one structural member for attaching said platform assembly to the frame of the vehicle, each attachment site adapted to receive a respective resilient mount;
  - wherein, when said platform assembly is installed inside the vehicle, said resilient mounts are operative to isolate said platform from the frame of the vehicle such that said platform floats within the vehicle.
19. A platform assembly as defined in claim 18, wherein, when said platform assembly is installed inside the vehicle, said platform is operative to maintain the pieces of equipment mounted thereto in a substantially rigid assembly during motion of the vehicle.

20. Use of the platform assembly defined in claim 18 for mounting equipment inside a railcar.

21. A platform assembly for a railcar, the railcar having a frame, said platform assembly comprising:

- at least one structural members defining a platform, said platform being characterized by at least one equipment bay adapted to receive equipment;
- 10 - at least one attachment site provided on said at least one structural member, said attachment site adapted to be resiliently attached to the frame of the railcar for suspending said platform within the railcar;
- 15 - wherein, when said platform assembly is installed inside the railcar, said platform is operative to maintain the equipment mounted thereto in a substantially rigid assembly during motion of the railcar.

20 22. A platform assembly as defined in claim 21, wherein said platform assembly includes a plurality of attachment sites provided on said at least one structural member, each attachment site adapted to be  
25 resiliently attached to the frame of the railcar for suspending said platform inside the railcar.

23. A platform assembly as defined in claim 22, wherein each attachment site is adapted to receive at least  
30 one resilient mount, said resilient mounts being operative to isolate said platform from the frame of

the railcar when said platform assembly is installed inside the railcar.

24. A platform assembly as defined in claim 23, wherein,  
5 when said platform assembly is installed inside the railcar, said resilient mounts are positioned between said at least one structural member and the frame of the railcar for supporting said platform.
- 10 25. A platform assembly as defined in claim 23, wherein said resilient mounts are selected from the group consisting of: a rubber mount, a spring, a damper, a pneumatic spring and a fluid-filled mount.
- 15 26. A platform assembly as defined in claim 21, wherein the railcar is a locomotive.
27. A platform assembly as defined in claim 26, wherein the pieces of equipment are selected from the group  
20 consisting of: a gas turbine engine, a gearbox, an alternator, a high-speed generator or a flywheel.
28. A method for mounting equipment inside a vehicle, the vehicle having a frame, said method comprising:  
25 - providing a platform adapted to receive a plurality of pieces of equipment;  
- attaching said platform to the frame of the vehicle such that said platform is resiliently suspended within the vehicle;  
30 - mounting two or more pieces of equipment to said platform in a substantially rigid assembly.

29. Use of the method defined in claim 28 for mounting equipment inside a railcar.
- 5 30. Use of the method defined in claim 28 for mounting equipment inside a road vehicle.
31. Use of the method defined in claim 28 for mounting equipment inside a ship.
- 10 32. Use of the method defined in claim 28 for mounting equipment inside a magnetically-levitated vehicle.
- 15 33. Use of the method defined in claim 28 for mounting equipment inside an airborne vehicle.